

Brown (J. R.)

R I S K S

OF

SURGICAL OPERATIONS.

BY

THOMAS R. BROWN, M. D.,

PROFESSOR OF CLINICAL AND OPERATIVE SURGERY AND DISEASES OF THE GENITO-URINARY
ORGANS, COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE, MD.

FROM APRIL NO. RICHMOND AND LOUISVILLE MEDICAL JOURNAL.



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SURGICAL OPERATIONS

JOHN A. MASON, M.D.

LECTURES DELIVERED AT THE NEW YORK MEDICAL COLLEGE

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Risks of

SURGICAL OPERATIONS.

Mr. President,—It was rash in me when confronted by that common enemy, the Chairman of the Committee on Lectures and Discussions, to have selected for one article so large a subject as the risks of surgical operations.

Not until I had fairly settled down to carry out my contract did I realize what a big job I had undertaken. Like all other indiscretions, this has its penalties, and like all penalties, this didn't get any smaller nor any nicer by considering ways of escape. Any resort to this would have been a loss of time, and I remembered the Duke of Newcastle's experience, who "once lost an hour and spent the whole of one day looking for it." I had before me one of two alternatives—"me *demettre* ou me *soumettre*"—either comply or run away. I had to do the former. It will, of course, be impossible for me to be exhaustive of all those questions, of all those varied conditions with which we, as physicians, meet in both the healthy and unhealthy, and which exercise more or less influence upon the results of all our operations.

If I were to attempt a review of all those *individual* peculiarities alone which certainly affect the progress of both disease and operation, I would have my hands full. Inasmuch as there enters into every man's life something which keeps him from being exactly like any other man, so there is in every one a particular element which, I doubt not, is necessary to be considered if the risk of operative surgery is to be reduced to its minimum. In this respect each one surely must be an individual; he is a law unto himself, and upon this standard alone can we predicate our hopes and fears in a given case. If separate and singular factors be lost sight of, to this extent must our schedules of expectation, our tables of average results, of necessity be fallacious.

Here comes in the not-to-be exaggerated importance of a careful and thorough study of each man as a distinct being,

who, for our purposes at least, does live unto himself, and as such must be worked out.

Whilst the ambition of all generalizations, whether in medicine or some other inductive science, is to group singular phenomena—the very gist of modern medicine—are we not very often beset with the idea that some of our generalizations may have started wrong; may have been founded upon inaccurate data; perhaps not seen at all; simply inferred; or, on the other hand, studied with such a bias of personal drift and prejudice as to, when fully detected, almost completely invalidate both text and context? The significance of all this, as applied to our topic, is to illustrate the uncertainty, and therefore to lend a current want of confidence in the narrations of individual experience. Not so much, however, because your and my experience may not comport with the narrators which, like yours and mine, must, of a necessity, be relatively small as compared with the great bulk of knowledge, but mainly because we are afraid that it is not correct and will not bear handling. This is especially true and highly proper that it should be so, if he assails and threatens to dethrone one of our tenets. He may be engaged in a new and laudable departure; his reasoning may be correct and supported on every side by invulnerable walls, but we mean that he must prove his position and remember that all discoveries have long histories. Then, and only then, after severe criticism, can it be added to the great fund of knowledge and thus serve its useful and practical purpose. It is evident, however, that we can not see everything for ourselves, but have to rely upon the observations of others. Let it be true, as we are reminded on every side, that this is the age of doubt, and that the age of authority, the age of "*ita Galenus dixit*," which was without progress scarcely, has passed away. That depressing period when a man was all men is not now; but in the place of that, a man is what he is and what he does, no matter how great nor how splendid his genius. We can admire him and still not worship him. We can respect him, provided he does not try to compel us to kotoo at his feet. The weight of his authority is therefore commensurate with the power of his wisdom. With these respected qualifications, this, like every succeeding

period, is and must continue to be the age of authority, the age when men's words may be permitted to hold their intrinsic value. So we can *qualify* our tendency to doubt to mean that healthy, vigorous skepticism which is abroad and which is the very soul of research. Whilst we can affirm with the poet Laureate, that "doubt is devil born," so we can agree with him that "there lives more faith in honest doubt, believe me, than in half the creeds." Will we ever be able to settle our indebtedness to Paracelsus, that magnificent charlatan, for having opened the flood-gates of this same skepticism.

It is by the application of these essentials in our study of the dangers which attend operations, as reported, that we are brought to the very verge of being personal or even of considering that delicate something of motive; it must be admitted that it is chiefly amid the exploits and dash of surgery that medical buncombe survives. Here is to be explained, I doubt not, our difficulty in getting at the varying rates of mortality after many operations. If a man's aim is merely to make for himself *for* fame for notoriety, it is clear that the concealment of his failures is of the first importance, and involves that he withhold from scientific gaze the details of every case where such a result followed.

It may be true that very many of those details, could they be exposed, might, if he did but realize it, contribute to establish him and his skill on a much higher plane than obtains so long as the first line of conduct is adhered to. Undoubtedly the fear of an unjust criticism and an unhandsome use of his failures by jealous rivals serve to suggest the wisdom of silence.

That style of man lacks the true scientific spirit, and falls short of meeting that requirement which a true devotion to science would suggest. (I trust, sirs, that no one will misjudge me in supposing that I claim for myself ~~no~~ ^{such} exemption from these comments.) He makes use of society interchange, and even the journals, for the same purpose that he uses card-racks at hotels, on railroads, on steamboats, his connection with charities; notices by the public press of what he has said and has done, *without his knowledge or consent, of course*; and that purpose is useless, so far as it affects the question of medical

progress. No matter when or where you see him or hear of him, his medical experience is implied to be one unruffled, undisturbed sea of triumphs. He is a wonder indeed.

My main object in offering these suggestions is to encourage myself and others to see the great good that we, in this energetic Society, can accomplish by occasionally unearthing those cases when in part or in whole our diagnosis, prognosis, and treatment have been wrong. Is it not true that the most profitable experience of our professional lives has been in those cases where we have failed, ~~at~~ the time our reasoning seemed to be perfect and without a flaw, but an unexpected recovery or a death with its post-mortem came to scatter our theories and put us to confusion? Then it is we hang our heads and think, but take care to keep our remorse to ourselves.

By way of illustration, it has not been very long since I was called to operate for strangulated hernia by my friend, Dr. —, of this city. Instead of an intestine, after the operation had advanced to the point where the protrusion is to be put back, I found a swollen testicle lodged in the right groin, and which had never descended. Now do you suppose that the same carelessness, for such it was, which kept me from making a thorough examination, and especially an examination for an inguinal testicle, is likely to occur again? I trow not. Happily, the patient got well, and I believe without any bad results, so far as I have been advised. Now, I confess to having been extremely anxious that none of my brethren should find out my mistake and make capital over it. My chief comfort consisted, however, in knowing that it was the result of sheer carelessness, which was reprehensible, to be sure, though not as much so as stupidity or ignorance. I think that the most of us prefer to be accused of the former than of the latter, for the same reason that many men would rather die in a prison for some intelligent offence to concluding their days in an insane hospital, or worse still, in an asylum for idiots.

A case in which everything turned out just as we expected gives no concern and leaves little impression, whereas, a case in which an intelligent medical man fails is probably a case presenting difficulties and complications. These often evoke

thought and reflection, notwithstanding our efforts now and then to besmear an error in diagnosis or fault in treatment with sophistry and specious argument. I repeat it, gentlemen, these are the things which go so far to vitiate our records and make them of little service in settling many important questions. When a man, who is the type of that higher class, endowed with great clearness and unquestioned integrity, cites his experience and the results of his operations, there is nothing left but to accept them. As specimens, I might offer a man like Sir James Paget abroad and J. Marion Sims in this country, who seem to me to possess these qualities to a very high degree. Their experience and results may not be so producible or attainable by us, but that will not make theirs any the less true. Not only as to what is actually seen by them, but as to the soundness of their reasoning upon which they may be led to speculate in subtle pathology for example; not morbid anatomy so much, for this is a matter of ocular inspection; they present the same strong attractions. These facts go to demonstrate that too much emphasis must not be laid upon accuracy of observation and a rigid precision in the narration of what took place in a given condition, or of what was seen. The requirements of our science are very severe. It certainly requires a clever man not only to see all that is to be seen, but to see it correctly, and to be able to place that experience (in its largest sense) before people in its exact light.

I have offered these *membra disjuncta* as a prelude to our discussion, with a confident feeling of their appropriateness. In considering what is meant by the risks of an operation, I imagine that we agree as to its including any consequence of sufficient moment to affect the accomplishment of the desired end. This end, I take it, is to restore the patient to health and enable him to become a self-sustaining member of society. Of course occasions arise, as in time of desperation, where our movements have for their immediate aim the saving of life.

'Tis life of which our limbs are scant;

'Tis life, more life, for which we pant;

More life and fuller that we want.

To the first category belong the "operations of expediency,"

and to the second belong the "operations of necessity." Both of these involve the use of much fine discrimination and judgment in regulating all those matters which a refined experience would dictate as influencing the attainment of the greatest good. Under the head of "Operations for Expediency" are included those which aim to rid the patient of something which does not necessarily affect his present health, and may, in fact, be classed simply among the inconveniences. It is in this very field where surgery has achieved its proudest triumphs. The wonders of ocular surgery, the successes of ovariectomy, in orthopædia, and in many similar directions, all attest this. But as Skey suggests, we must not fix our eyes too constantly on these flattering sides of the picture and lose sight of "the frightful alternative of failure by which a person who, at the earnest recommendation of his surgeon, has submitted to a large operation with a view to prevent a future and contingent evil, is laid upon his death-bed." I envy no man the twinge as to his responsibility in having induced such a melancholy result. In the case of operations of necessity, on the other hand, whilst they call for the same cool judgment, the duty of the surgeon is more obvious. Dexterity in manipulation, promptness of action, are of paramount importance here to the surgeon. That other task imposed upon him in the preceding class of deciding upon the propriety of the interference is nearly always, in the very nature of the case, a "*res adjudicata*." Let us look hastily at certain of those conditions in particular which affect the risks of our surgery, following somewhat the hints of Sir James Paget in his essays. It would be an important object gained if we had some standard or unit of health which we could adopt as the best for operations. It is very certain that that health which qualifies a man for the ordinary duties of life is not the best qualification for enduring operations. For example, one of our stalwart laboring men who might, in popular speech, be described as, and is in fact, the picture of health, is not our best subject. Let him be severely injured to the extent of requiring an amputation of one of his limbs; according to statistics, he will most probably do less well than the broken-down victim to a long-continued necrosis, upon whom an iden-

tical operation may be required. There is a proviso to be added to this statement; to-wit, that his kidneys have not yet become involved in that form of disease to which Dickinson, I think, first called attention as the result of prolonged suppuration, the amyloid kidney. The cause of this difference is not easy of explanation. One thing is certain, that the latter patient is much less liable to shock than the former. He seems under the influence of more or less constant pain and confinement to have acquired tolerance. Besides this, as was once stated by a great surgeon in commenting upon these relative dangers in the two types which I have referred to, the hale and hearty man has to "give up many of the customs by which he sustained the health that was fit for pleasure or for work, especially the active, mental, and bodily pursuits in which he excreted freely and largely the large refuse matter of his food and tissue waste."

Mr. Callender, in his St. Bartholomew's reports, calls attention to the remarkable success which attends operations performed upon boys employed in printing offices. Their wounds heal kindly, and besides this, they are much less liable to the secondary danger of the operation, such as hæmorrhage, bad suppurations, and the like. My only explanation for this is that the in-door occupation with these boys does not incline to the production of that excess of vigor, if such a thing could be, which obtains in the case first cited. Whatever may be our admiration for the "plethoric" man with his ruddy cheeks, solid and compact muscle, his bounding pulse, his excellent appetite and digestion, it can safely be asserted that he is not the surgeon's choosing as the best for an operation.

Perhaps amongst the worst conditions for bearing operations is old age; not so much as indicated by the number of years lived as by the tone and vigor of health. A man of forty, whose entire system of living has been antagonistic to the maintenance of a high standard of health and conducive to those same degenerations of tissue as are the result of old age, must be classed with the aged in estimating the dangers of an operation upon him. In both alike the presumptions favor their bearing the *shock* unsatisfactorily and their liability to hæmorrhages,

slow healings of wounds, etc. The frequent association of calcareous and atheromatous degenerations of heart and vessels with old age, or the condition which goes with it, constitutes the element of danger. As stated, their wounds heal slowly, seldom by the first intention, or what the results of Thiersch's inquiries would call the second intention. The old are intolerant of any wide variations in the swing of the great pendulum of life. The permissions to deviate are circumscribed, and all decided variations fraught with danger. Children, if the element of pain can be ruled out, bear operations well. If this is not disposed of, the danger of shock is increased out of all proportion to what happens with the adult. The rapid manner with which a fatal shock occurred in a young child, I was enabled to observe in a case of strangulated hernia some years ago. There are many cases on record where the dressings of burns in children were attended with alarming symptoms of shock.

Then, again, those instances of pain that followed simple operations bear convincing evidence of this fact. Happily, we have a remedy—chloroform, or some other anæsthetic, at our command which will rid us of this danger, and in the light of such experience I seldom induce much pain in a child unless there be such serious objection to the remedy as would forbid its use. To this end the prolongation of the influence of the anæsthetic by the aid of morphia is to be recommended. All efforts directed towards banishing terror, as well as pain, become substantial adjuncts to the operator's skill. He is a good surgeon who takes serious note of them. Pyæmia is of rare occurrence in children after operations, though it is said to be the common enemy we have to meet in cases of acute infantile necrosis. It can be met generally with success, as recovery is the rule. Like all those similar conditions in which the characteristic of pyrexia occurs with very young, we seldom meet with distinct rigors. They are either entirely absent, are perceived as mere sensations of chilliness, or are substituted by convulsions. The mobile temperaments of children, and their highly wrought organizations, as chiefly denoted by their powers of repair, are of good use to them in making secondary hæmorrhage, erysipelas, ugly suppurations, and the like, very

uncommon, and in qualifying them to replace with considerable rapidity the lost blood. Here, as in every other period of life, our rule is to keep before us that the conservation of energy and the acquirement of a healthy reaction have an inverse ratio to the hæmorrhage. "*Vita est in sanguine vita est sanguis ipsa.*"

The alleged ability of the depression of an operation to hasten the development of some disease remote from the seat of attack, and in some way connected with it, has long been entertained, and if correct, applies to both children and adults. Our records contain many instances in which this would seem to be so. The case of Mr. Smith, where a tubercular meningitis followed an excision of the hip joint. On the day following there was coma and convulsion, terminating in death within a week. The great frequency of tubercular meningitis, showing itself, as a rule, during the stage of surgical fever, would seem to imply an especial tendency to this disease. The popular superstition as to the risk of healing ulcers that have existed long is another case in point. The continuance of excellent health with the persistent discharge is offered to prove that they are coördinate. I am inclined to think that either the Pope himself, who has had, as we know, for many years a running leg ulcer, or his physicians endorsed this sentiment to the extent of not considering it discreet to interfere, lest an aggravation of the epileptic seizures ensue. For my own part, whilst I am prepared to admit that unsuspected, but none the less present, disease is often made manifest by the depressing influence of an operation, I am extremely skeptical as to the healing of an old ulcer being the means of establishing some independent affection. My own experience in the matter of fistula in ano, for example, occurring and treated by operation in cases of phthisis pulmonalis, exactly corresponds with that of Allingham. I could quote a number of cases, the majority of my operations, where the healing of the sinus, though slow, was followed with marked benefit, and the general health improved as the drain and irritation diminished. Those examples of where the remote disease seemed to be aggravated by the cure of the fistula must be ranked with the exceptions. By all the records which I have examined, they are certainly in the minority. The appar-

ent ability of an operation to bring to light in children some latent disease was shown in a bare-lip operation upon an infant some time since. There succeeded to the operation great fretfulness and insomnia, followed by decided wasting and a diffused syphilide within a few days. In further comment upon the risks of operations in children, it must not be forgotten that the period of second dentition is not favorable.

True as it may be with regard to all those unfavorable issues of many of our operations, there is a long and comfortable list of diseases where the good attainable by interference is great. We are all familiar with cases of this kind. Those cases of urinary calculi, of urethral stricture with the pin-point contraction of the normal channel, of persisting necrosis with its exhausting suppurations, and pain especially if in a joint; and many other instances in which the relief by the operation required rises to its maximum, and the risk is reduced to its minimum. What splendid recoveries they make after the removal of a source of more or less constant irritation. The sense of anxiety gives place to one of contentment, and expression of pain coupled with despair surrenders to one of good cheer and hopefulness; the quick pulse of hectic and excitation is superseded by the calm circulation of convalescence; the capricious appetite is changed for an honest hunger; and everything, in short, marks the lifting of a great load from the patient and a change for the better.

Whilst it is in some of those cases of prolonged suppuration where we encounter the amyloid degeneration before spoken of, I entertain little doubt that Mr. Marsh is correct in his claim, that a timely surgical operation before, that is to say, the pronounced structural lesions have become established, will stop the progress of the disease and make the albuminuria disappear.

With reference to certain chronic constitutional diseases in their effects upon our operations, and in determining our selection of the particular method of operation, much of interest can be said. For instance, as pertinent to the latter point, take the case of stone in the bladder in Napoleon III, in which an almost indecent altercation arose between the physician and surgeon as to who was to blame for the fatal result. The operation in that

case was lithotritry, in the face of what I believe to be a settled principle that, given a stone in the bladder with the urine showing granular casts, the surgeon assumes a very grave responsibility in substituting lithotritry for lithotomy. As to the other aspect of the question, as to where the blame rested for not having detected the disease of the kidneys, it is clear to my mind. Whilst Sir William Gull, as a matter of professional thoroughness, ought to have ascertained the character of the urine, it was the duty of Sir Henry Thompson to have satisfied his own mind upon this urgent point. I contend that no sense of medical propriety should deprive a surgeon of his making use of anything that will in any way affect the results of his operation. Under the caption of "Constitutional Diseases," I include such as scrofula. Persons afflicted with this ailment are good subjects for operations. Their wounds are liable, to be sure, to indolent suppurations, and to assume the appearance of scrofulous ulcers; but on the other hand, pyæmia, erysipelas, and the like are rare with them; their recoveries are slow but sure. Concerning the mooted point of the propriety of moving the disease at one point lest it "break out" in another, there are enough cases published by most competent observers where such results followed as to compel us to admit that it is not altogether unreasonable. A case in point: A patient applies for relief from necrosis (scrofulous) of one of the toes; the toe is removed; after a time a similar disease attacks the knee, requiring amputation of the thigh; and this in course of time is followed by caries of the spine." The latter gets well of itself apparently, and there is no recurrence. Such as these are the only risks which, as it occurs to me, we incur in operating upon the scrofulous, and they relate to the length of time consumed in the recovery solely.

Syphilis, provided it be not of unusual severity, as a rule, does not militate against an operation. Except in the negro race, where the low-cell tendency of a scrofulous taint is often engrafted upon the syphilitic, this disease would not contraindicate the use of the knife. Of course under this head is not included the chancroid, all operations near which must be performed with great circumspection. In the case of the chancre

it is different. No wound could heal more kindly, for example, than that which is made in its excision, an operation of very questionable propriety and use, performed by certain surgeons. The election by the syphilides of certain fresh cicatrices as their seat, by nodes and even necrosis in the tertiary stage of spots recently injured by blows, must suggest to the surgeon, however, that there are certain conditions where the wounds made by himself will incur the same risks. Of these he must be on the watch. So far as my own experience extends in the main, capital operations upon persons suffering from syphilis of average severity are recovered from about as fast as those in good health.

In cancer operations our results as to immediate recovery are excellent. The occasional selection of the line of the incision for the return of disease must not be lost sight of.

Gouty patients who have not reached the period where the cardiac, renal and arterial degenerations have become established are moderately good subjects for the operations. This is the experience of eminent authority, but for my own part I regard the gouty patient with disfavor; I have a misgiving about him. Besides, there must, I believe, be a big difference between the effects of a gout acquired by a long course of luxurious and riotous living and one that is hereditary, associated with prudence in the matter of food and drink. The former are very bad, and the latter, as instanced by those cases of urinary stone, most probably an expression often of the gouty heredity, are good.

Leaving the morbid constitutions, I must call your attention to another style of patient whom we often meet as by no means the best for surgery. I refer to the full-blooded, plethoric man. And here again we note a difference between the over-fed, over-fat and inert plethora and the plethora that is combined with a compactness of physique, tightly-fitting skin, whose life is movement, and full of energy and action. The latter class is much to be preferred. Of the former, Sir James Paget says: "The worst of this class are such as have soft, loose, flabby, yellow fat, and I think that you may know them by their bellies being pendulous, and more prominent than even their thick subcuta-

neous fat accounts for, for this shape tells of thick omental fat, and I suppose of defective portal circulation.

I know of no operations in which I more nearly despair of doing good than in those for umbilical hernia, or for compound fractures in people that are over-fat after this fashion. Nothing short of the clearest evidence of necessity or of great probable good should lead you to advise cutting operations in people of this kind. Do lithotritry for them rather than lithotomy, incline against amputations for even bad compound fractures, and wherever you can, as for instance for cutaneous cysts, hæmorrhoids and the smaller examples of scirrhus mammary cancers, use caustics rather than the ligature or knife."

The next division of my subject includes a notice of the intemperate in eating and drinking alcohol, especially the latter. In regard to the habitual drinker, whether he be the man of constant drunkenness, the man of sporadic sprees, or the man of habitual dependence upon grog; who thinks he needs stimulants before work; who can not dine without his bitters; who sips his sherry, his brandy and water at every turn, and contemns legitimate food; all alike are unfavorable guests of the surgeon. Their wounds heal slowly; they are our most likely victims to secondary hæmorrhage, and make the after-treatment the most uncertain. It is moreover with this class of cases, when during the period which follows the operation and the period of restraint, that attacks of mental aberration, the next of kin to mania a potu, set in. They lack tone; they are prone to pneumonia of a fatal type; to extensive suppurations and prolonged shock. Of all the specimens described, they are perhaps the worst which can fall into the hands of the surgeon.

As to the influence exerted by over-feeding, it is urged to be an objection only when the excess applies to the nitrogenous foods. Those who live almost exclusively upon meats and use vegetables in moderate quantities do less well after operations than those where the reverse obtains. This is the explanation, it is said, of the higher rate of mortality which occurs with those who enjoy the privileges of the higher and more generous civilizations of Europe as compared with the inhabitants of India and other Eastern countries who subsist chiefly on vegetables.

The proverbially large consumption of meats among our agriculturists is offered to explain the higher rate of mortality with them as contrasted with a corresponding class in our cities. If such an expression can be used, it is perhaps because the former have too much health to successfully surrender suddenly a life of activity for one of complete inertia.

Time will not permit more than a mention of many other cognate matters, without a mention of which the discussion of the subject would be incomplete. They include the influence of the antiseptic method as practiced by Lister, of climate, of race, of acute disease, and chronic ailments which affect the vascular system, the liver, the heart, the kidneys, and the lungs. Then again come those cases where the fear in an "operation of expediency" of evoking a hidden insane heredity is well founded, as especially considered in connection with the surgical handling of the uterus, in hysterotomy for example. These and a host of others belong to our text, but must be passed by at this time.

There remains a question of more importance in determining our operations than all the rest put together. I mean the competency of the operator himself. The most of us can recall the first fascination of the amphitheatre; how then and there we resolved to be great with the knife, which we esteemed to be the essence of surgery. A very false conception surely of what it really is. I do not of course mean to undervalue this manual dexterity, this power of easy and entire command over the movements of the hand with the cultivated tactile sense. It is really an accomplishment for one to be able to appreciate the nature and amount of force to be applied to his instrument. It, like chirography, is a natural endowment. It is one of superior quality, but fills its highest mission only when found combined with the faithful servant of a high degree of intellectual development. As surgery moves forward, growing with the rest of the sciences, the purely mechanical surgeon depreciates. Surgery is so much one branch of medicine as a whole as to make a severance very difficult. I agree with Billroth, "that the true problems for the physician are to find out the causes of disease, to prognosticate the course, conduct it to a

favorable termination or control it, and these are equally difficult in internal and external medicine. Only one thing more is required of the practical surgeon, and that is the art of operating." This art must not be misunderstood as necessarily implying grace in execution. If I mistake not, the most of our great surgeons were not what we call graceful manipulators. Their greatness certainly did not rest upon the foundation of "operative skill." Their distinction came to them because they were great; great in their sound judgment, in their penetration, in their powers of nice discrimination; great because prompt in action; calm and self-possessed in the midst of danger; and great in all those attributes which go to make up the evenly-balanced and "neatly-minded" man. "

Hence it is that we find Erichsen summing up, first, that so far as concerns the purely mechanical and manipulative departments, practical surgery has nearly if not quite attained finality, that indeed very little remains to be done to render operative surgery practically perfect; second, that the success of operations bears no relation to the skill with which they are executed. Mr. Wood, in his inaugural, gives good advice:

"Be anatomical, but not too discriminative,

But, above all, be clinical and surgical, but not too operative."

Mr. Higdon
3574
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